AMENDMENTS TO THE DRAWINGS:

The attached replacement sheet of drawings includes changes to Figure 2 and replaces the original sheet including Figure 2.

In Figure 2, please replace the word "Ampiregulin" with –Amphiregulin– , and amend the amphiregulin sequence to read as:

^{25}KRKKKGGKNGKNRRNRKKKNP^{45}

REMARKS

Supplementary to the Amendment and Response mailed on July 31, 2007, Applicant respectfully requests entry of this amendment, which corrects informalities such as clear typographical errors. Any fees that may be due in connection with the filing of this paper or with this application may be charged to Deposit Account No. 06-1050.

IN THE SPECIFICATION

Amendments to the specification are made herein to correct obvious typographical, grammatical and spelling errors. Additionally, the paragraph beginning at page 5, line 19 is amended so that the description of Figure 2 includes the inadvertently omitted recitation of "human amphiregulin" as one of the proteins for which Figure 2 depicts GAG-binding sequences. This amendment finds basis throughout the application as filed, for example in original Figure 2.

The paragraph beginning at page 21, line 3 is amended to add the sequence identifier SEQ ID NO:12, which sets forth the amino acid sequence for the *Actinomyces viscosus* sialidase gene represented by Genbank Accession Number X62276, added herein to the Sequence Listing by amendment. This amendment finds basis in the application as filed, for example, at page 21, lines 5-6, which state that the *Actinomyces viscosus* sialidase gene is represented by Genbank Accession Number X62276. Further, the paragraph beginning at page 59, line 24 of the application as filed notes that Genbank sequence database entries, including nucleotide and amino acid sequences, are incorporated by reference in their entirety.

The paragraph beginning at page 48, line 16, is amended to correct incorrectly recited GAG-binding domain sequence identifiers. Page 48, lines 18-19 recite that the sequence identifiers of the GAG-binding sequences of AAMP and amphiregulin are "SEQ ID NO:7" and "SEQ ID NO:6," respectively. Lines 18-19 on page 48 are amended herein so that the sequence identifiers for the GAG-binding sequence of AAMP and amphiregulin correctly read as "SEQ ID NO:6" and "SEQ ID NO:7," respectively.

This amendment finds basis in the application as originally filed. For example, at page 19, lines 11-12 and page 21, lines 29-30, the sequence identifiers are correctly recited. Additionally, lines 11-12 on page 19, lines 29-30 on page 21, and lines 18-20 on page 48, state that the AAMP and amphiregulin GAG-binding sequences are depicted in Figure 2. Figure 2, as originally filed, sets forth AAMP and amphiregulin GAG-binding domain sequences and correctly indicates that the sequences correspond to SEQ ID NO:6 and SEQ ID NO:7, respectively. Further, the AAMP and amphiregulin GAG-binding sequences

depicted in Figure 2 correspond to the sequences set forth in SEQ ID NOS: 6 and 7, respectively, of the Sequence Listing as originally filed. No new matter has been added.

IN THE DRAWINGS

Amendments to the drawings are to correct typographical and spelling errors. For example, original Figure 2 sets forth the amino acid sequence of the human amphiregulin GAG binding domain (SEQ ID NO:7) and indicates that this domain corresponds to amino acids 25-45 of amphiregulin. Through typographical error, three Ts (denoting threonine) inadvertently were included in place of Rs (denoting arginine) in the sequence set forth in original Figure 2. This error clearly was typographical in nature (T is adjacent to R on the keyboard). The amino acid sequence of human amphiregulin is well-known. For example, the complete amino acid sequence of mature human amphiregulin was reported in 1989 (Shoyab et al., 1989 *Science.* 243(4894 Pt 1):1074-6; and Plowman et al., *Mol. Cell Biol.* 1990 (5):1969-81; both attached hereto in an appendix). The erroneous amphiregulin GAG binding domain sequence recited in original Figure 2 does not align with 100% identity within any portion of this well-known full amphiregulin sequence. 100% identity with a portion of the full sequence *is* achieved by replacing the three erroneous threonines in the sequence set forth in Figure 2 with arginines. After this correction, the sequence aligns with 100% identity to amino acids 25-45 of the amphiregulin sequence, the same amino acid positions recited in original Figure 2. The corrected sequence also aligns with the portion of human amphiregulin (amino acids 26-44) that was reported in 1994 to bind GAG-containing heparin (Johnson and Wong, 1994 269(43): 27149-27154; attached hereto in an appendix). Thus, the inadvertent incorrect recitation of T's in place of R's in original figure 2 was clearly by typographical error.

Accordingly, Figure 2 is amended herein to rectify this error and recite the correct amphiregulin GAG binding domain sequence, KRKKKGGKNGKN<u>RR</u>N<u>R</u>KKKNP. One of skill in the art readily can deduce that the sequence set forth in the replacement sheet containing Figure 2 corresponds to amino acids 25-45 of the well-known mature human amphiregulin sequence.

No new matter has been added. Accordingly, entry of the replacement sheet containing Figure 2 into the file history of the instant application respectfully is requested.

IN THE SEQUENCE LISTING

Provided herewith are a substitute Sequence Listing (7 pages), a computer-readable form of the substitute Sequence Listing on CD-R (labeled as Computer Readable Form (CRF)), and a verified statement that the content of the computer-readable form is identical to

the Sequence Listing submitted on paper in accordance with 37 C.F.R §§1.821-1.825. The computer-readable form on CD-R of the Sequence Listing, titled 6502SEQ.002.txt, is identical to the 7-page paper copy and contains no new matter.

The Sequence Listing is amended to change the <130> identifier such that it correctly sets forth the Attorney's Docket Number as 21865-002001/6502, and the <140> identifier to identify the Serial Number of the application.

Additionally, the Sequence Listing is amended to correct the typographical error that inadvertently included three Ts (denoting threonine) in place of Rs (denoting arginine) in the amino acid sequence of the human amphiregulin GAG binding domain set forth as SEQ ID NO:7. As discussed above, this error was clearly typographical in nature.

Accordingly, the substitute Sequence Listing is submitted herewith to rectify this error and recite the correct amphiregulin GAG binding domain sequence, KRKKKGGKNGKNRRNRKKKNP, as SEQ ID NO:7.

The Sequence Listing also is amended to add SEQ ID NO:11 and SEQ ID NO:12, which set forth the coding nucleic acid and amino acid sequences, respectively, of the *Actinomyces viscosus* sialidase gene represented by Genbank Accession No. X62276. This amendment finds basis in the application as originally filed, for example, at the paragraph beginning at page 21, line 3, which states that the *Actinomyces viscosus* sialidase gene is represented by Genbank Accession Number X62276. Following the *Revision History* link, under the *Reports* menu within the NCBI database GenBank record, indicates that the sequence record for Genbank Accession No. X62276 first was entered into the NCBI public database on Apr 21, 1993. The Revision History also indicates that Version 1 of this Accession No., corresponding to GI number 39254, is the only version that has existed, evidencing that the sequence has not been changed since its entry in 1993. Thus, the sequence under this Accession Number is the same as that under the Accession Number on the filing date of the instant application. As noted in the paragraph beginning at page 59, line 24, Genbank sequence database entries, including nucleotide and amino acid sequences, are incorporated by reference in their entirety into this application.

No new matter has been added. Accordingly, entry of the substitute Sequence Listing into the file history of the instant application respectfully is requested.
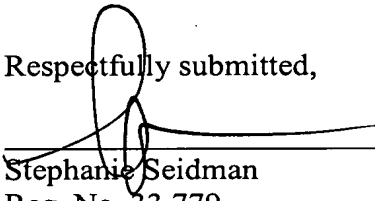
* * *

Entry of this amendment and examination of the application respectfully are

requested.

Respectfully submitted,

Stephanie Seidman
Reg. No. 33,779

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